METHOD AND APPARATUS FOR
MONITORING ENERGY STORAGE
DEVICES
by: Srdan Mutabdzija
Attorney Docket No.: A2000-700019

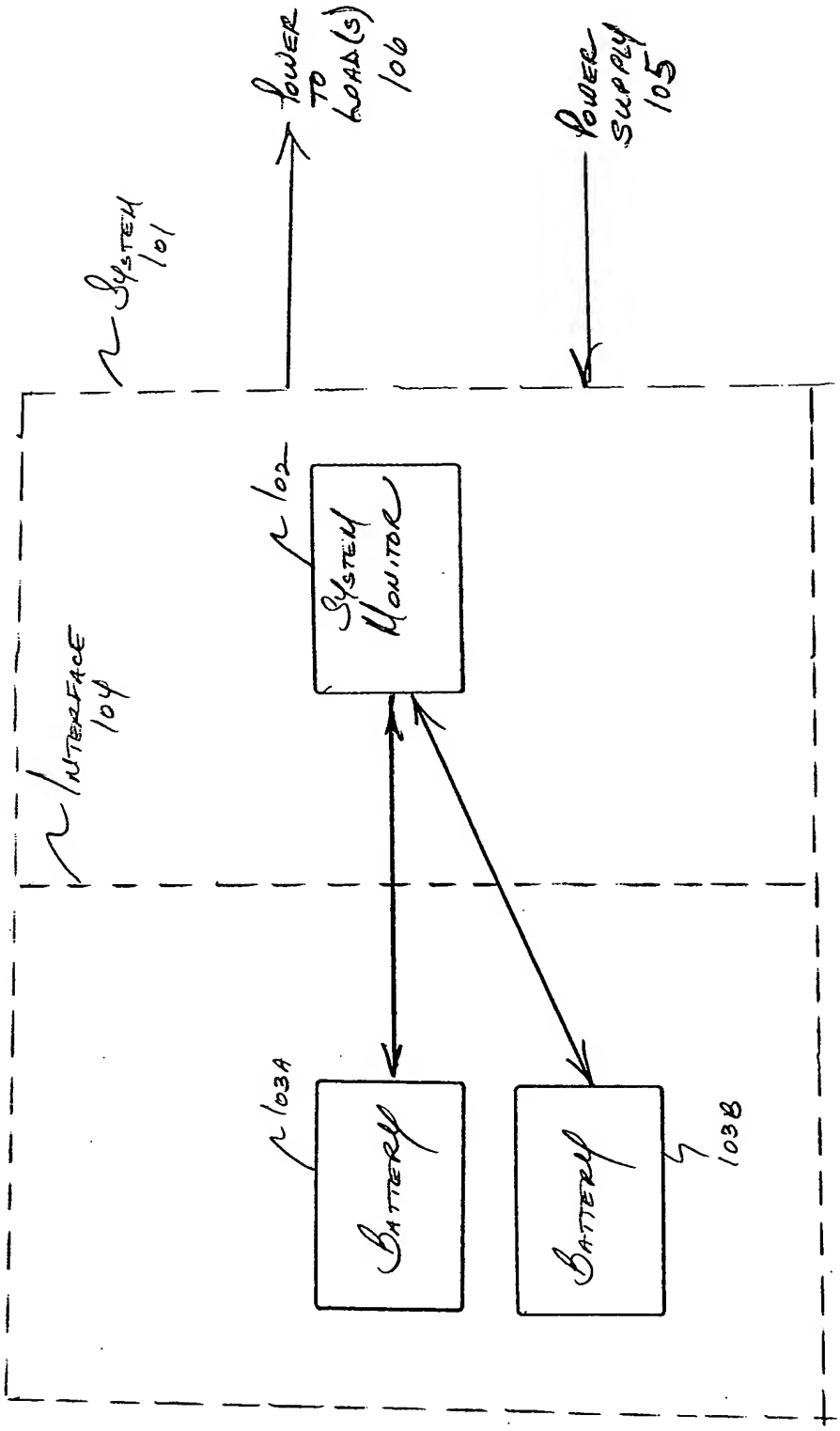

Figure 1

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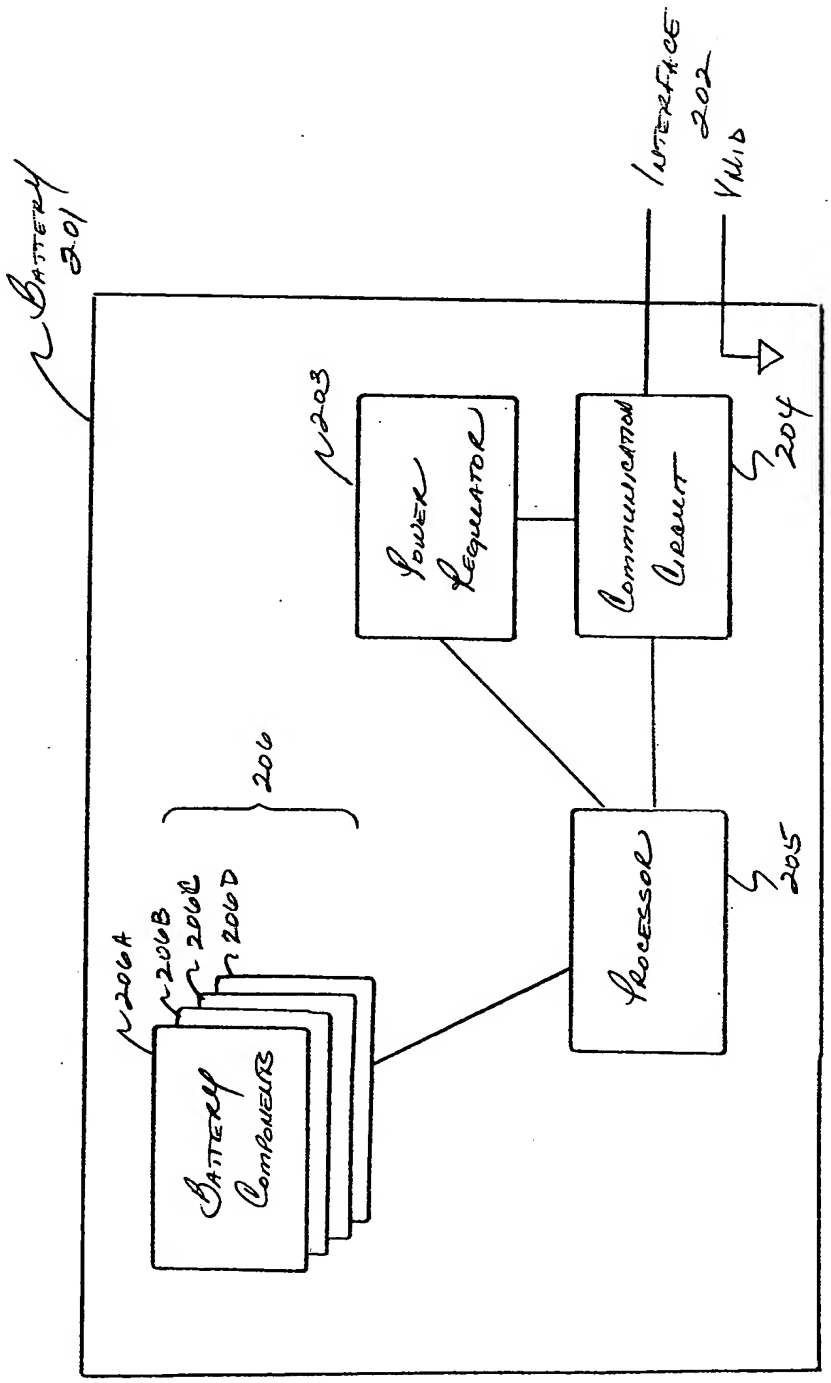

Figure 2

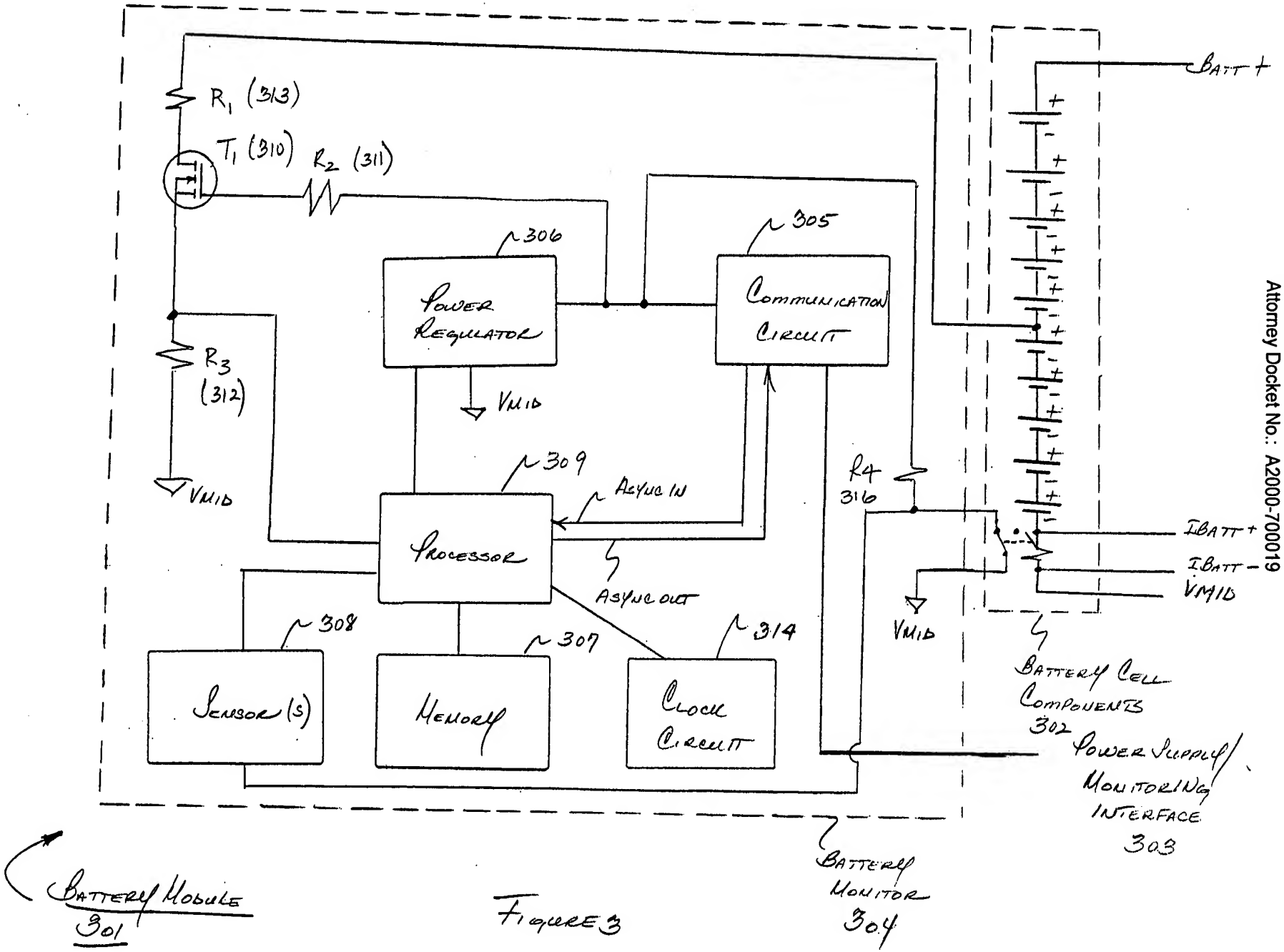
R1 (313)
T1 (310)
R2 (311)
306
Power Regulator
305
Communication Circuit
R3 (312)
VMID
309
Async In
Processor
R4 316
Async Out
308
307
314
Sensor(s)
Memory
Clock Circuit
VMID
BATT+
IBATT+
IBATT-
VMID
Battery Cell Components 302
Power Supply/ Monitoring Interface 303
Battery Monitor 304
Battery Module 301

Figure 3

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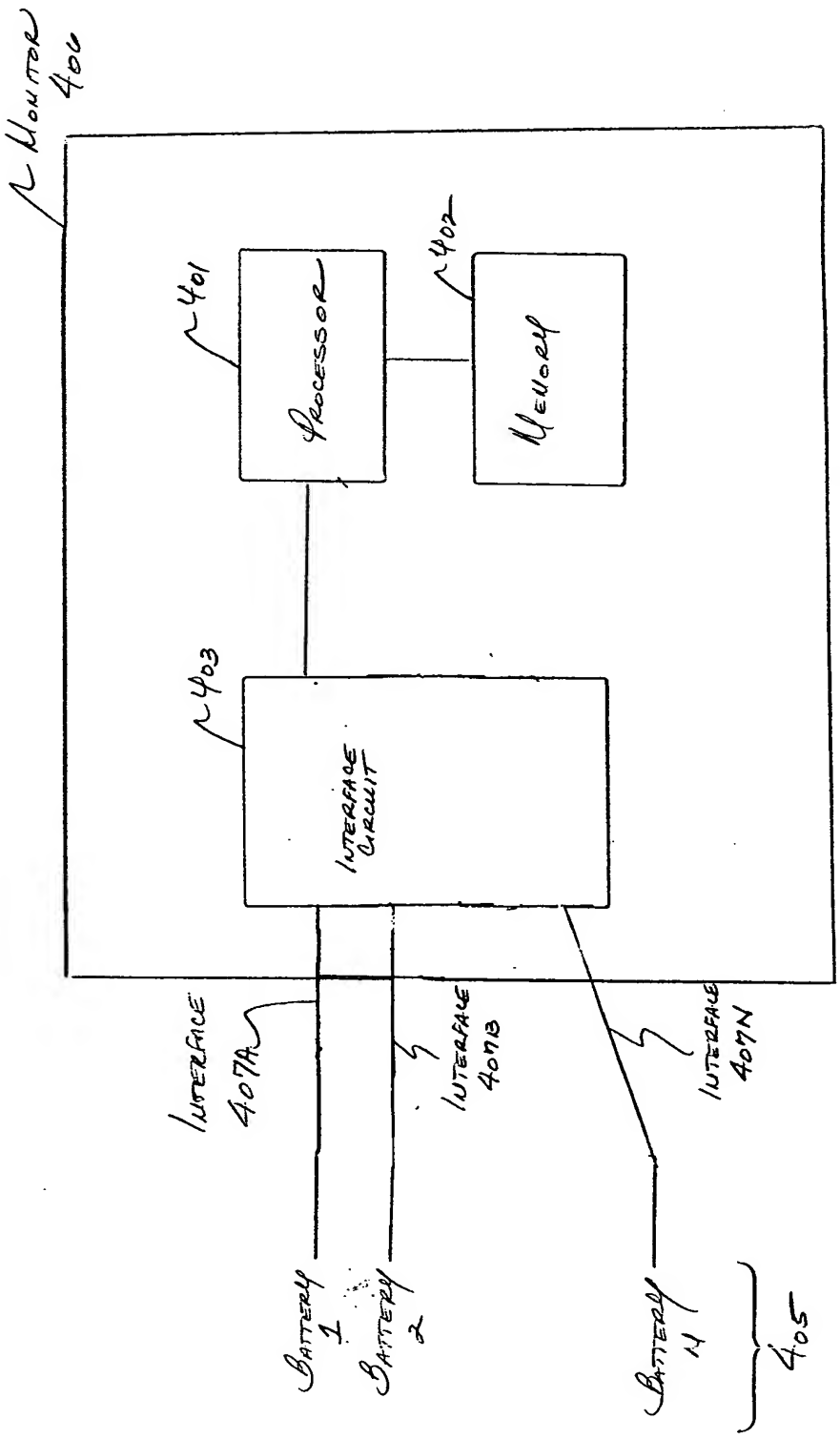

Figure 4

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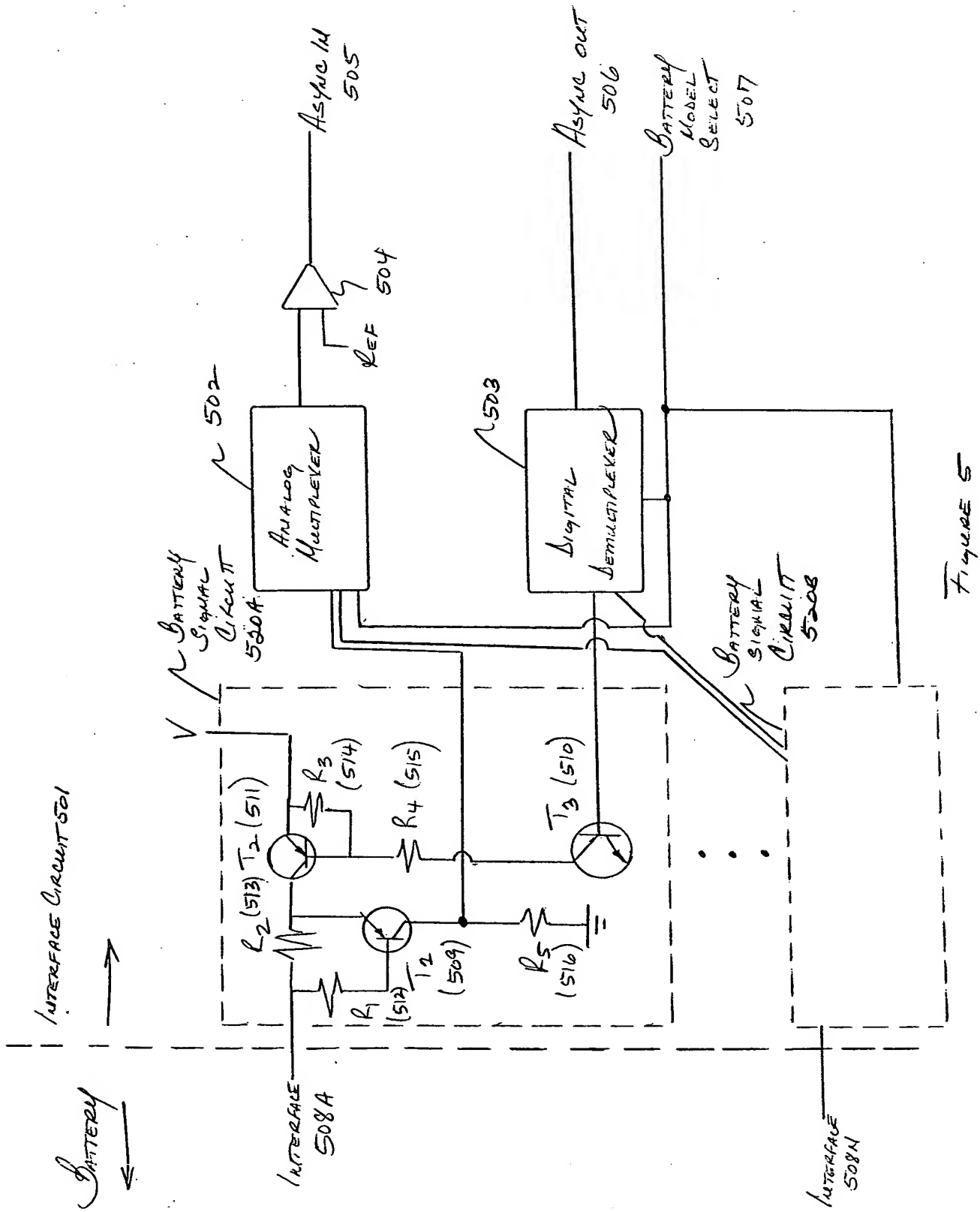

Figure 5

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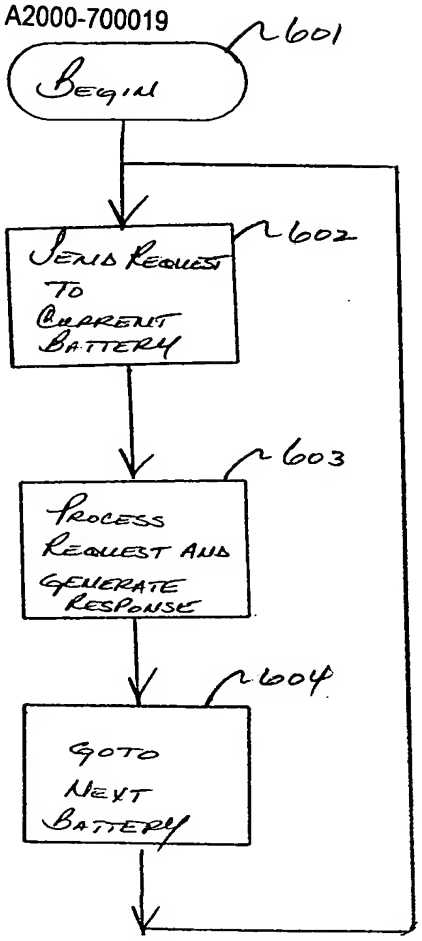

Process 600

FIGURE 6

METHOD AND APPARATUS FOR
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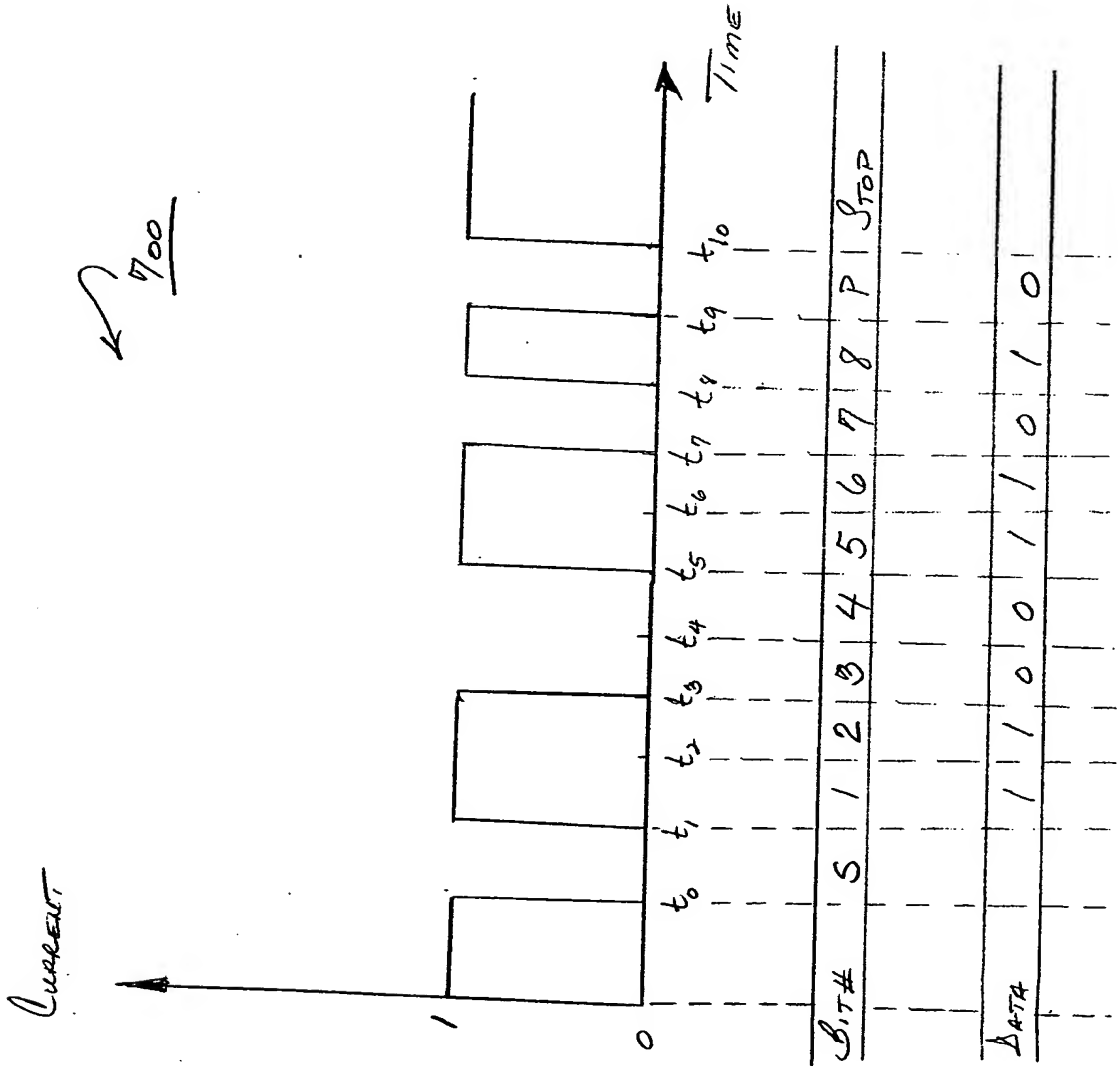

FIGURE 7

METHOD AND APPARATUS FOR
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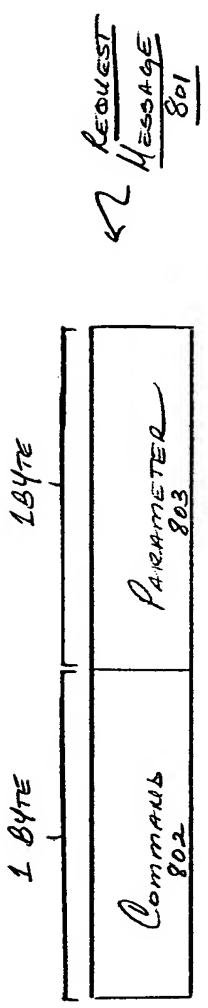


Figure 8A

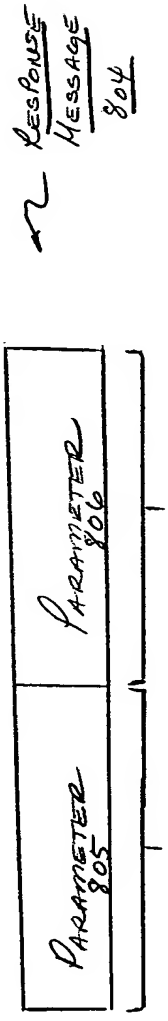
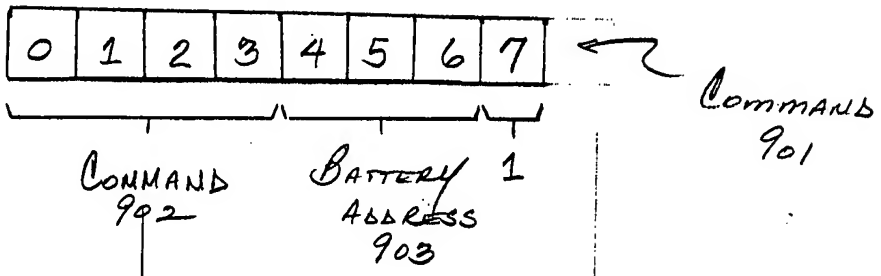


Figure 8B



COMMAND IDENTIFIER	BIT 0	BIT 1	BIT 2	BIT 3	COMMAND
0X00	0	0	0	0	RESET BATTERY COMMUNICATION
0X01	0	0	0	1	UNUSED
0X02	0	0	1	0	INVALID
0X03	0	0	1	1	ADDRESS/BATTERY SELECT
0X04	0	1	0	0	INVALID
0X05	0	1	0	1	WRITE TO BATTERY (ADDR)
0X06	0	1	1	0	INVALID
0X07	0	1	1	1	READ MEMORY
0X08	1	0	0	0	INVALID
0X09	1	0	0	1	READ TEMPERATURE
0X0A	1	0	1	0	INVALID
0X0B	1	0	1	1	READ VOLTAGE
0X0C	1	1	0	0	INVALID
0X0D	1	1	0	1	READ CODE REVISION
0X0E	1	1	1	0	INVALID
0X0F	1	1	1	1	UNUSED

TABLE 904

FIGURE 9

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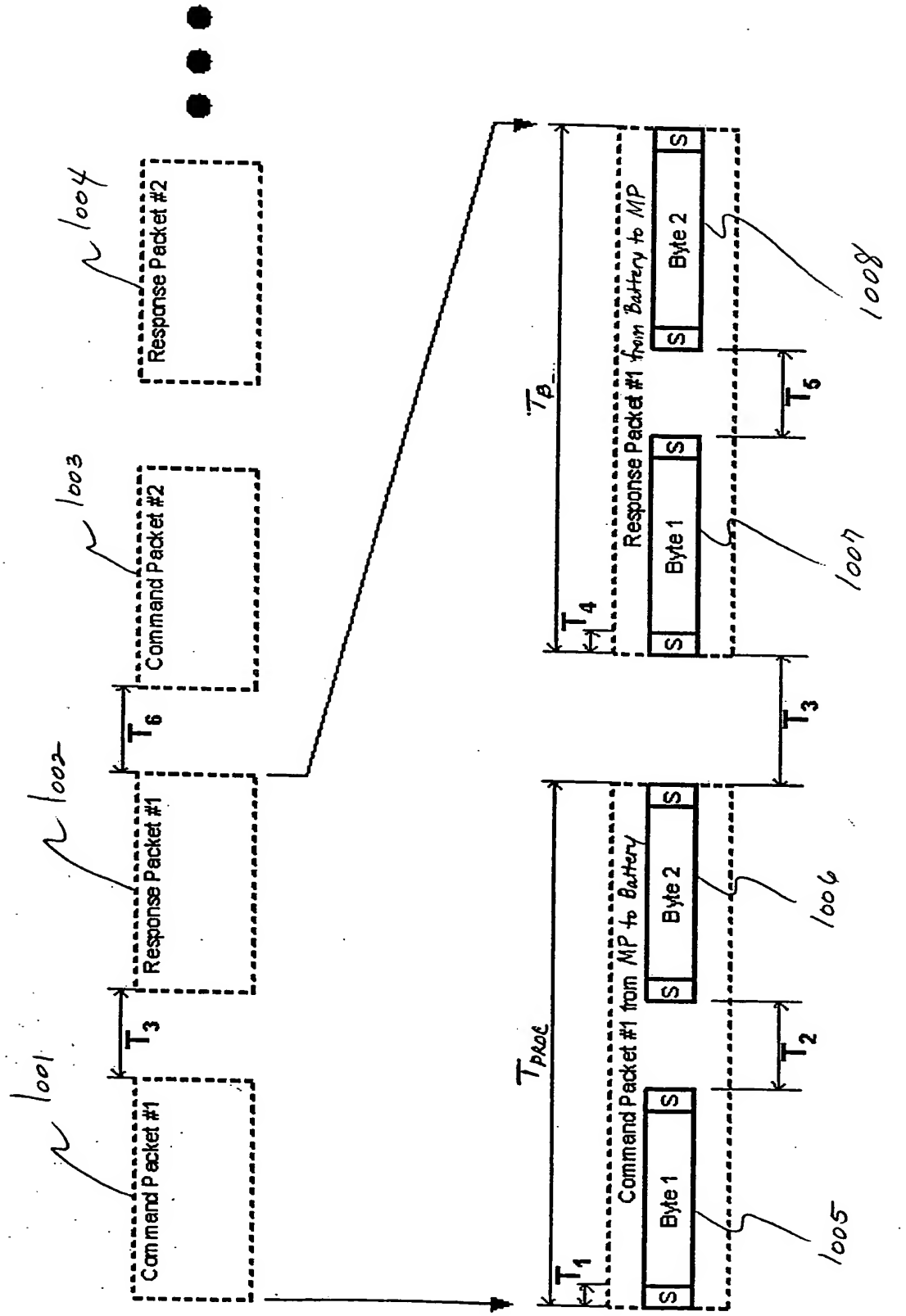

Figure 10

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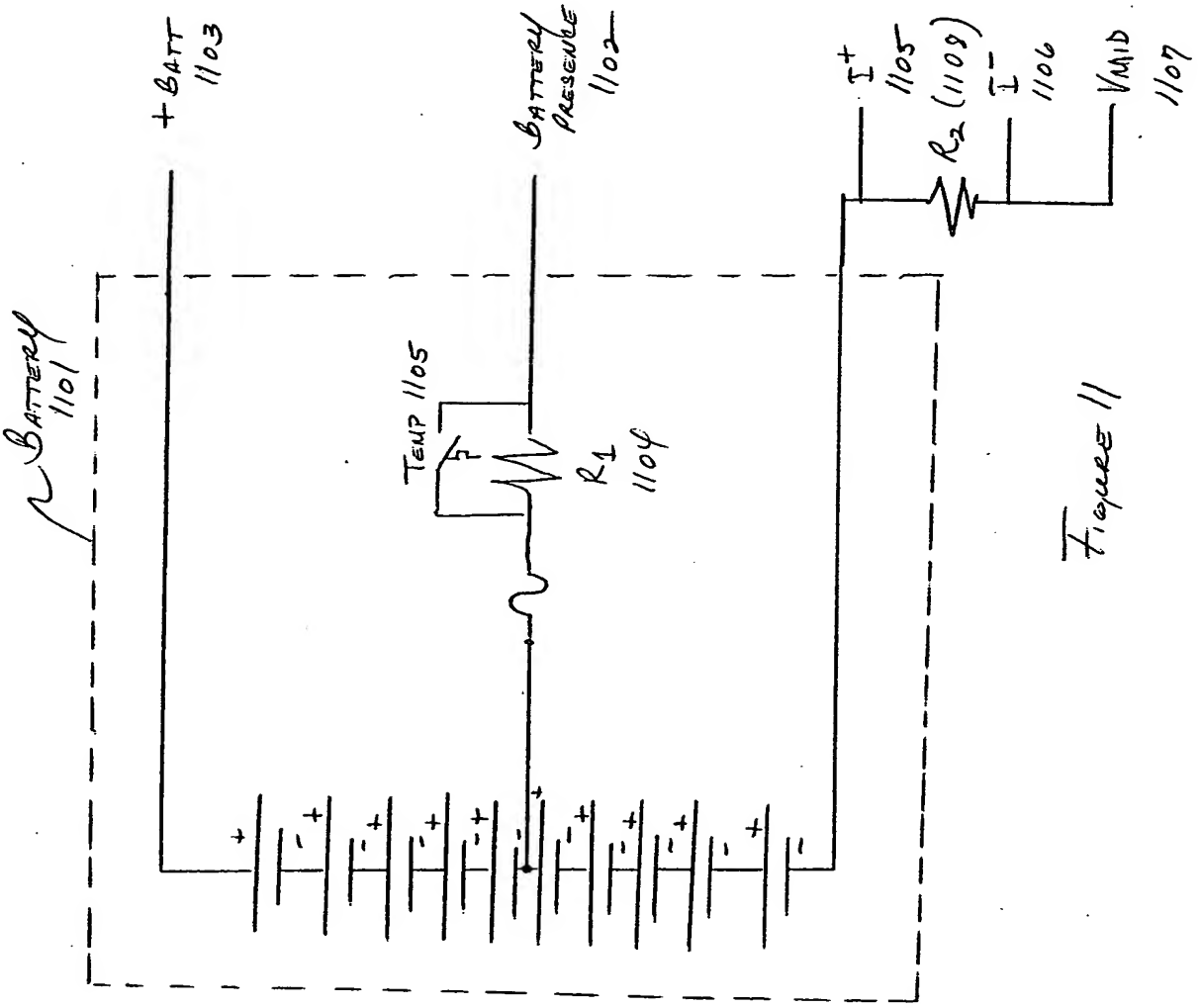

Figure 11